

This listing of the claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) An electronic package, comprising:
 - a first device including a microelectronic die having an integrated circuit;
 - a second device including a first thermal plate; and
 - a thermal interface material between and in contact with surfaces of the first and second devices, the thermal interface material including:
 - at least one polyester matrix material polycaprolactone; and
 - at least one thermally conductive filler dispersed within the thermal interface material;
and
less than about 10% by weight of one or more clay materials, wherein individual platelet particles of the clay have a thickness of less than 2 nm and a diameter between about 10 nm and about 3,000 nm.
2. (Previously presented) The electronic package of claim 1, wherein the thermal interface material comprises a phase change material.
3. (Previously presented) The electronic package of claim 2, wherein the phase change material has a melting point between about 40°C and about 130°C.
4. (Previously presented) The electronic package of claim 1, wherein the thermal interface material has improved thermo-oxidative stability compared to a polyolefin resin.

5. (Canceled)
6. (Previously presented) The electronic package of claim 1, wherein the thermal interface material further includes at least one additive to modify at least one of modulus, viscosity, and moisture adsorption.
7. (Previously presented) The electronic package of claim 6, wherein the at least one additive comprises a resin.
8. (Previously presented) The electronic package of claim 6, wherein the at least one additive comprises at least one of polyolefin, polystyrene, polyacrylate, polyamide, polyimide, polyarylate, and epoxy.
9. (Previously presented) The electronic package of claim 1, wherein the thermally conductive filler has a bulk thermal conductivity greater than about 50 W/mK.
10. (Original) The electronic package of claim 1, wherein the thermally conductive filler includes at least one of a ceramic, a metal, and a solder.
11. (Original) The electronic package of claim 1, wherein the thermally conductive filler includes at least one of zinc oxide, aluminum oxide, boron nitride, aluminum nitride, aluminum, copper, silver, indium, and tin.

12. (Previously presented) The electronic package of claim 1, wherein the thermally conductive filler comprises between about 10% and about 90% of the thermal interface material by weight.

13. (Original) The electronic package of claim 1, wherein the thermally conductive filler further includes at least one of a surfactant, coupling agent, adhesion modifier, wetting agent, colorant, and stabilizer.

14. (Currently amended) The electronic package of claim 1, wherein the ~~thermally conductive filler~~ clay further includes an organoclay clay.

15. (Currently amended) The electronic package of claim 1-14, wherein the thermal interface material comprises layers of the clay, and wherein an individual layer of the clay comprises a thickness of about 1 nm individual platelet particles of the clay have a thickness of less than about 2 nm and a diameter greater than about 10 nm.

16. (Currently amended) The electronic package of claim 1-14, wherein the clay includes at least one of montmorillonite, saponite, hectorite, mica, vermiculite, bentonite, nontronite, beidellite, volkonskoite, magadite, kenyaite, mica, synthetic saponite, synthetic hectorite, fluoronated montmorillonite, and fluoronated mica.

17. (Original) The electronic package of claim 14, wherein the clay is a swellable free-flowing powder having a cation exchange capacity from about 0.3 to about 3.0 milliequivalents per gram of mineral (meq/g).

18. (Original) The electronic package of claim 1, wherein the thermal interface material contacts the die on one side and the thermal plate on an opposing side.

19. (Original) The electronic package of claim 1, wherein the first device includes a second thermal plate thermally coupled to the die, the thermal interface material contacting the second thermal plate on one side and the first thermal plate on an opposing side.

20-27. (Cancelled)